



Letter to the Editor

Answer to the comments made by Prof Chariot to our original paper 'Patterned genital injury in cases of rape – A case-control study'



Dear Editor,

On behalf of my colleagues and myself, I thank Professor Chariot for his relevant comments to our paper 'Patterned genital injury in cases of rape – a case-control study'.

I would like to point to the fact that our paper was published as a *short report*, and therefore has a narrow perspective. The paper only deals with and discusses one single question, namely the pattern of genital injury. Our study was conducted in a field where no prospective, comparative studies had been published before. The motivation for conducting our study was the relative lack of data to be used in everyday practice.

Prof Chariot raises the important question of comparability of the cases and the control group. This question is, however, not confined to our paper only, but a problem in all sexual assault research, psychological, forensic and epidemiological research alike. Getting a valid control group is exceedingly difficult. An assault situation is unique and cannot be reproduced in a research setting.

In the research of genital injury, Slaughter et al.,¹ Anderson et al.,² McLean et al.³ and our group have obtained a control group in four different ways, all with strengths and weaknesses. The strengths of our study rest on the fact that it was prospective, examinations were done by the same doctors in the same room, and all women were asked the same detailed questions. One of the weaknesses was the homogeneity of the control group, and the fact that their intercourse was 'planned' before the examination. The four mentioned studies are so different in design, that they do not allow detailed comparisons. It is our conclusion that our study confirms the results of others, when adjusting for differences and looking at the overall pattern, as explained in detail in the discussion. It is not correct, as stated by professor Chariot that a study shows higher prevalence of injuries in a control group than in an assault group. The ultimate goal, as I see it, is to publish as much data with as much detail as possible, in the end allowing for valid meta-analysis.

Age of victim and time from intercourse to examination are easily aligned. In retrospect we agree with professor Chariot that we should have excluded the two 17-year olds as well as the three women examined more than 48 h post-assault, leaving us with a better control group of 35 women, aged 18 to 40 and examined within 48 h. Previous sexual experience is mentioned in the paper, and it was an inclusion criterion. The other factors mentioned by professor Chariot, like childbirth, use of condom, a steady partner

and intake of alcohol are difficult to even up in a control group. We did the second best, we controlled for it statistically. In the logistic regression model described in the paper, comparing women with lesion(s) to women without lesions, none of these factors showed any correlation with the presence of lesions. Regarding the intake of alcohol – professor Chariot should be happy, not surprised that young nursing- students do not drink on weekdays. The women of the case group were only asked of alcohol intake prior to the assault, not afterward.

The question of the 'roughness' of the intercourse touches upon some of the myths of sexual assault. A sexual assault is undoubtedly a gruesome experience, but to extrapolate this fact to the actual intercourse, the actual penetration itself, is wrong. A study by Jones et al.⁴ shows a high proportion of erectile dysfunction among perpetrators. This fact and other possible special circumstances of the assault makes it possible to have a 'soft' intercourse in the midst of a terrifying experience. This distinction was of course explained to the women in both groups.

Regarding photography of lesions, one of our main points in the paper 'Colposcopic photography of genital injury following sexual intercourse'⁵ was caution when interpreting colposcopic photographs. We strongly oppose to the method of measuring genital lesions on photographs. Firstly the colposcope is an advanced optic instrument designed for easy use. Therefore it can produce sharp images from different angles and it can be moved several centimeters without blurring. Secondly, the female genital area is flexible making measurements imprecise at best.

The final remark on sample size is always valid. I would like to stress the need for more and better research in the area of clinical forensic medicine. This includes more research with focus on comparability for meta-analysis, but also the international, multi-center studies that forensic medicine is strikingly void of.

Conflict of interest

None.

References

1. Slaughter L, Brown CR, Crowley S, Peck R. Patterns of genital injury in female sexual assault victims. *Am J Obstet Gynecol* 1997;**176**:609–16.
2. Anderson S, McClain N, Riviello RJ. Genital findings of women after consensual and non-consensual intercourse. *J Forensic Nurs* 2006;**2**:59–65.
3. McLean I, Roberts SA, White C, Paul S. Female genital injuries resulting from consensual and non-consensual vaginal intercourse. *Forensic Sci Int* 2011;**204**:27–33.
4. Jones JS, Rossman L, Wynn BN, Ostovar H. Assaultants' sexual dysfunction during rape: prevalence and relationship to genital trauma in female victims. *J Emerg Med* 2010 May;**38**(4):529–35.

DOI of original article: <http://dx.doi.org/10.1016/j.jflm.2013.03.003>.

5. Astrup BS, Lauritsen J, Thomsen JL, Ravn P. Colposcopic photography of genital injury following sexual intercourse in adults. *Forensic Sci Med Pathol* 2013;9: 24–30.

Birgitte Schmidt Astrup, MD, SpR*

*Institute of Forensic Medicine, University of Southern Denmark,
Odense, Denmark*

* Tel.: +45 22 99 96 92.

E-mail addresses: birgitte@schmidtstrup.dk,
bastrup@health.sdu.dk.

11 September 2013

Available online 17 October 2013